

## REMARKS

Claims 12 to 15, 17, 18, 20 and 21 remain pending. Claims 12, 17, 18, 20 and 21 have been amended by the above changes to further distinguish from the cited prior art and to simplify the claim wording.

### I. Claim Changes

Changes have been made in the independent claims to limit the compounds of formula III to pyridine derivatives. In other words, the pyrimidine derivatives have been excluded from the agent by limiting both A and B to CH<sub>3</sub> in formula III.

In view of the limitation of the independent claims to pyridine compounds of formula III, the wording of step a) has been simplified by deletion of the no longer needed Markush wording. This necessitated amendment of claim 17 to avoid antecedent basis problems.

Claim 18 has been amended so that it is now an independent claim including the features and limitations of claim 12 in it.

### II. Allowable Subject Matter

Claim 18 was found to be allowable according to paragraph 3 on page 10 of the Office Action, however it was objected to because it depended on a rejected base claim, namely claim 12.

Claim 18 has now been amended so that it includes the features and

limitations of claim 12 and is independent. Also step a) of the amended claim has been limited to pyridine derivatives because the particular compound in claim 18 originally is a pyridine derivative.

For the foregoing reasons and because of the changes in claim 18 allowance of the amended claim 18 is respectfully requested.

### III. Obviousness Rejections

Claims 12 to 15, 17, 20 and 21 were rejected as obvious under 35 U.S.C. 103 (a) over Hocquaux, et al, alone, or in view of Tuloup, et al.

Hocquaux, et al, disclose pyrimidine 3-oxide derivatives, which are tautomeric with the compounds of formula III, when A = N and B = CH. Actually Hocquaux, et al, only disclosed pyrimidine 3-oxides. Tuloup, et al, was cited to show that these compounds have tautomers that are examples of the compounds of formula III with A = N and B = CH.

Hocquaux, et al, also do teach that these compounds are useful for the treatment of hair loss.

However the independent method claims 12 and 21 of the above identified U.S. Patent Application have now been amended to exclude pyrimidine oxide derivatives or their tautomers from the agent compounds used in the method. The agent has now been limited to pyridine derivatives only of the formula III. As noted above this corresponds to the requirement that A = B = CH in formula III.

Furthermore Hocquaux, et al, does not disclose or suggest that any of the pyridine derivatives of the formula III are useful to treat hair loss or to promote

hair growth. The only pyridine compounds that this reference suggests would be helpful in treating hair loss or promoting hair growth are nicotinic acid (claim 1) and the nicotinic acid esters disclosed in column 3, lines 27 to 32, and claim 2. However the nicotinic acid and nicotinic acid esters lack the amine and/or oxime groups present in the compounds of formula III. They are clearly not amine oxides for example.

A method for treating hair loss by applying the pyridine derivatives of formula III of amended claims 12 and 21 would not be obvious from the disclosure of a method for treating hair loss disclosed in Hocquaux, et al, which employs nicotinic acid and/or nicotinic acid esters. For example, the pyridine compounds of formula III have too many structural differences in substituent groups to be obvious from the nicotinic acid esters.

Similarly Tuloup, et al, does not disclose or suggest a method of treating hair loss or promoting hair growth in which an agent comprising a pyridine derivative of formula III of the amended claims 21 and 12 is applied. Again the closest pyridine derivatives suggested for application in Tuloup, et al, have too many structural differences from the applicants' pyridine derivatives of formula III to suggest a method of treatment using them. Tuloup, et al, also suggests including the nicotinic acid esters at column 4, lines 10 to 12, and in dependent claim 7.

It is well established by many U. S. Court decisions that to reject a claim of invention under 35 U.S.C. 103 there must be some hint or suggestion in the prior art of the modifications of the disclosure in a prior art reference or references.

used to reject the claimed invention, which are necessary to arrive at the claimed invention. For example, the Court of Appeals for the Federal Circuit has said:

"Rather, to establish obviousness based on a combination of elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant...Even when obviousness is based on a single reference there must be a showing of a suggestion of motivation to modify the teachings of that reference.." *In re Kotzab*, 55 U.S.P.Q. 2<sup>nd</sup> 1313 (Fed. Cir. 2000). See also M.P.E.P. 2141

There is no hint or suggestion of the modifications of the method of treatment using an agent containing a nicotinic acid derivative and/or nicotinic acid disclosed in Hocquaux, et al, and/or Tuloup, et al, which are necessary to arrive at the applicants' claimed method in amended claims 12 and 21. Too many structural modifications are necessary to arrive at the pyridine derivatives of formula III as claimed in claims 12 and 21 from these nicotinic acid derivatives.

As far as the pyrimidine 3-oxides of both references go, there are countless ways to modify these compounds besides replacing a ring nitrogen atom with a CH group. The chemical and physical properties of pyrimidine derivatives are different from those of pyridine derivatives and biological systems such as enzyme systems, are sensitive to small structural differences. Neither cited reference provides any guidance regarding how to modify the pyrimidine 3-oxides to obtain other types of compounds that are effective for treating hair loss or promoting hair growth. Neither reference provides a hint or suggestion of the applicants' pyridine derivatives of formula III.

For the foregoing reasons and because of the changes in independent method claims 12 and 21, withdrawal of the rejection of claims 12 to 15, 17 and 21, as obvious under 35 U.S.C. 103 (a) over Hocquaux, et al, alone or in combination with Tuloup, et al, is respectfully requested.

Should the Examiner require or consider it advisable that the specific claims and/or drawing be further amended or corrected in formal respects to pass this case in condition for final allowance, then it is requested that such amendments or corrections be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing the case to allowance, he or she is invited to telephone the undersigned at 1-631-549 4700.

In view of the foregoing, favorable allowance is respectfully solicited.

Respectfully submitted,

  
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